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UNITED STATES DISTRICT COURT
 NORTHERN DISTRICT OF CALIFORNIA

TERADATA CORPORATION, TERADATA
 US, INC., and TERADATA OPERATIONS,
 INC.

Plaintiffs,

v.

SAP SE, SAP AMERICA, INC., and SAP
 LABS, LLC

Defendants.

Case No. 3:18-CV-03670-WHO

**FIRST AMENDED COMPLAINT FOR
 TRADE SECRET
 MISAPPROPRIATION, COPYRIGHT
 INFRINGEMENT, VIOLATION OF
 SHERMAN ACT § 1, VIOLATION OF
 CLAYTON ACT § 3, VIOLATION OF
 SHERMAN ACT § 2**

DEMAND FOR JURY TRIAL

1 Plaintiffs Teradata Corporation, Teradata US, Inc., and Teradata Operations, Inc.
2 (collectively, “Teradata”) complain and allege as follows against Defendants SAP SE, SAP
3 America, Inc., and SAP Labs, LLC (collectively, “SAP”).

4 **THE NATURE OF THE ACTION**

5 1. This case is about SAP’s campaign of anticompetitive conduct directed at
6 Teradata. Over at least the last decade, SAP has used its powerful position in Enterprise
7 Resource Planning (“ERP”) Applications to gain entrance to and quickly grab market share in the
8 Enterprise Data Analytics and Warehousing (“EDAW”) market, in which it previously had
9 essentially no presence. SAP’s strategy began in 2008, when SAP leveraged its position in ERP
10 Applications to lure Teradata into a purported joint venture in order to gain access to Teradata’s
11 valuable intellectual property. The purpose of the joint venture—a purpose which Teradata now
12 knows was a false one on SAP’s part—was to combine SAP’s ERP Applications suite and
13 Business Warehouse reporting tool (SAP BW) with Teradata’s industry-leading “massively
14 parallel processing” (MPP) architecture for EDAW. SAP then stole Teradata’s trade secrets
15 (accumulated by Teradata over the course of four decades in the EDAW space), and used them to
16 quickly develop and introduce a competing (though inferior) product: SAP HANA.

17 2. Upon release of its new product, SAP promptly terminated the parties’ joint
18 venture, and it is now attempting to coerce its customers into using HANA only, to the exclusion
19 of Teradata, by forcing its customers to adopt HANA in exchange for upgrading their ERP
20 Applications. Moreover, and on information and belief, SAP has begun significantly restricting
21 Teradata’s ability to access customers’ SAP-derived data. Through this conduct, SAP has
22 deliberately sought to exploit its large, existing ERP customer base to the detriment of Teradata
23 and its customers. Given the extremely high costs of switching ERP providers, SAP’s ERP
24 customers are effectively locked-in to using SAP’s ERP Applications, and SAP is now attempting
25 to lock them into using only HANA in the EDAW market as well.

26 3. SAP could not have so quickly developed and marketed HANA in the first place
27 without its theft of Teradata’s trade secrets. Now, using the fruits of that theft and its position in
28 ERP Applications, SAP is attempting to foreclose Teradata from supplying EDAW solutions to

1 many of the largest corporations in the world. SAP's anticompetitive strategy has resulted in
2 irreparable and ongoing harm to Teradata in the form of lost customer relationships and
3 opportunities, lost profits, and continued erosion of market share in the very industry Teradata
4 pioneered. Teradata therefore is entitled to an injunction barring SAP's illegal conduct, monetary
5 damages, and all other legal and equitable relief available under law and which the court may
6 deem proper.

7 **PARTIES**

8 4. Teradata Corporation is organized under the laws of Delaware. Its global
9 headquarters is currently located at 10000 Innovation Drive, Miamisburg, Ohio 45342, with an
10 announced move to 17095 Via del Campo, San Diego, California 92127, in late 2018. Teradata
11 Corporation, either itself or through one or more of its subsidiaries, conducts research,
12 development, engineering, and other technical operations related to its EDAW products at its
13 facilities at 17095 Via del Campo, San Diego, California 92127.

14 5. Teradata US, Inc., a wholly-owned subsidiary of Teradata Corporation, is a
15 corporation organized under the laws of Delaware, with its current headquarters at 10000
16 Innovation Drive, Miamisburg, Ohio 45342. Teradata US, Inc. will also be moving its
17 headquarters to San Diego in late 2018. Teradata US, Inc. is the owner of all Teradata intellectual
18 property worldwide.

19 6. Teradata Operations, Inc., a wholly-owned subsidiary of Teradata Corporation, is a
20 corporation organized under the laws of Delaware, with its current headquarters at 10000
21 Innovation Drive, Miamisburg, Ohio 45342. Teradata Operations, Inc. will also be moving its
22 headquarters to San Diego in late 2018. Teradata Operations, Inc. is responsible for conducting
23 all of Teradata's business operations in the United States, including product development and
24 sales.

25 7. Defendant SAP SE is a European company. Its principal place of business is
26 located at Dietmar-Hopp-Allee 16, Walldorf, Germany, 69190. SAP SE converted from a
27 German "AG" corporation to an "SE" European company in 2014.
28

12. This Court has personal jurisdiction over SAP America because it has committed acts of infringement and misappropriation in this District. SAP America has sufficient minimum contacts with this District because, for example, SAP America's wholly owned subsidiary, SAP Labs, is located within this District. SAP America also has a place of business in this district. In addition, SAP America, directly or through intermediaries, sells or offers for sale infringing products and services in this District.

13. This Court has personal jurisdiction over SAP Labs because it has a place of business located within this District. Further, SAP's misappropriation and infringement of Teradata's intellectual property was carried out, at least in part, at SAP Labs' COIL facility in this District.

VENUE AND INTRADISTRICT ASSIGNMENT

14. Venue is proper under 28 U.S.C. § 1391(b) because a substantial part of the events or omissions giving rise to the claims occurred or a substantial part of property that is the subject of the action is situated in this District. Additionally, venue is proper under 28 U.S.C. § 1400(a) and 15 U.S.C. § 22 for the copyright and antitrust claims, respectively, because SAP Labs and SAP America (and SAP SE, through its subsidiaries) may be found and transact business in this district.

15. This is an Intellectual Property and Antitrust Action to be assigned on a district-wide basis pursuant to Local Rule 3-2(c).

BACKGROUND

A. Teradata Is One of the World's Leading Technology Companies and a Pioneer of EDAW Products, Including MPP Database Systems.

16. Teradata's flagship product, and the cornerstone of all of its enterprise-analytics offerings, is Teradata Database. Teradata Database is a massively parallel relational database management system (RDBMS) specifically designed for Enterprise Data Analytics and Warehousing (EDAW). EDAW involves the centralized storage and integration of vast amounts of data collected from numerous sources across an entire business enterprise in its day-to-day operations, giving the business a complete "enterprise view" of its operational activities. In

1 addition to data storage, EDAW is especially valuable in helping the world's largest companies
2 (most of whom serve millions or even billions of customers and/or process millions or billions of
3 transactions or data-generating events every day) analyze and fully understand the entirety of
4 their business operations, including how events happening in one area of the business impact
5 operations in other areas. EDAW also assists these companies in making the strategic and tactical
6 decisions, often in real-time, which allow them to operate as efficiently and profitably as possible.

7 17. Teradata has been a leading provider of EDAW products for nearly 40 years.
8 Teradata pioneered and was the first commercial EDAW vendor to employ the highly scalable
9 computing architecture known as "massively parallel processing" (MPP). Teradata's MPP
10 architecture is designed specifically for executing high volumes of complex analytical queries
11 (tens of thousands at a time) on the massive amounts of data generated by EDAW customers. As
12 the term MPP suggests, Teradata's architecture accomplishes this by dividing equally both the
13 data and the analytical workload across dozens, hundreds, or (in many cases) thousands of
14 parallel processor units, and executing the analytical tasks concurrently across these parallel units.

15 18. A Teradata system does this with "linear-performance scalability," meaning that
16 the system can grow to fit each customer's needs, taking on as many additional parallel processor
17 units and data-storage devices as necessary to accommodate whatever amount of data and
18 whatever type of analytics workload the customer can throw at it. As the customer's data
19 volumes and workload demands increase, the Teradata system can grow to accommodate them
20 with the simple addition of parallel units and (if necessary) redistribution of data and workload
21 across the expanded system. The Teradata system is unique in its ability to accommodate this
22 type of growth without diminishing the returns or sacrificing the processing power or efficiency
23 of any of its parallel units.

24 19. Teradata's MPP technology grew out of research conducted at the California
25 Institute of Technology. After starting the company in a garage in Marina Del Rey, California,
26 the founders obtained funding in mid-1979 and Teradata was born on July 13, 1979. The
27 founders chose the name "Teradata" to symbolize the ability of their flagship database to manage
28 trillions of bytes of data, an unimaginable amount of data at that time.

20. Teradata released the first commercial system incorporating its MPP architecture in the early 1980s and has spent the last *four decades* expanding and improving its technology, generating substantial trade secrets and other intellectual property in the process. In 1983, Teradata received the seminal patent on first-generation MPP design for data analytics (hardware-based parallelism; U.S. No. 4,412,285, “Multiprocessor Interconnection System and Method”). Eleven years later it also received the seminal patent on second-generation MPP design (software-based parallelism; U.S. No. 5,640,584, “Virtual Processor Method and Apparatus for Enhancing Parallelism and Availability in Computer Systems”), technology that continues to distinguish Teradata’s systems from those of its competitors today. It is access to this experience and innovation that SAP sought and received through the joint venture with Teradata and then ultimately unlawfully used to Teradata’s detriment, both through its development and release of HANA and through its subsequent attempts to monopolize the EDAW Market, which encompasses SAP’s customers in the Top-Tier ERP Applications Market (defined below).

21. In the 25 years since its early breakthroughs, Teradata has continued in its role as the pioneer for massively parallel analytics, developing and patenting technologies that remain the gold standard in a wide variety of technology areas. For example, in 2012, Teradata released its Unified Data Architecture (UDA), which allows a customer to collect and analyze all of its data no matter the type (including, *e.g.*, traditional “structured” data along with “unstructured” data like audio and video content) in a single analytical environment. In 2017, Teradata released IntelliCloud, which provides EDAW capabilities in a secured cloud-services environment. Today, Teradata has over 10,000 employees globally, including over 1450 employees based in California at Teradata’s San Diego, Santa Clara, San Francisco, and El Segundo facilities. On June 6, 2018, Teradata announced that it will be moving its headquarters from Miamisburg, Ohio, to its campus in San Diego.

22. Teradata serves the world’s largest enterprise customers operating in a diverse range of industries. Its customers include all 17 of the top telecommunications companies, 17 of the top 20 global and commercial savings banks, 16 of the top 20 travel and transportation companies, 15 of the top 20 global retailers, 10 of the top 15 pharmaceutical companies, and 12

1 of the top 20 manufacturing companies, among others. Teradata also serves a variety of
2 customers in the nonprofit and public sectors. Teradata's customer base primarily consists of
3 companies with data collected from millions of daily transactions from many data sources across
4 a wide variety of enterprise applications, business lines, and geographic locations. These
5 companies present the most complex data-analytics challenges and require the scalability and
6 sophistication for which Teradata's EDAW technologies were specifically designed.

7 23. Since the release of its first database product in the early 1980s, Teradata and its
8 products repeatedly have been recognized as standouts in the high-tech industry and within the
9 business community in general. Fortune magazine named Teradata's database system its
10 "Product of the Year" in 1986, and Gartner named Teradata the "Leader in Commercial Parallel
11 Processing" in 1994. Intelligent Enterprise magazine named Teradata the best global data
12 warehouse and business intelligence appliance vendor in 2007, and Forrester Research rated
13 Teradata number one in its first-ever enterprise data warehousing report in 2009. Forbes named
14 Teradata one of the world's 100 most innovative companies in 2013, and just a few months ago
15 Thompson Reuters named Teradata a Top 100 Global Technology Leader. Finally, the
16 Ethisphere Institute consistently has recognized Teradata as one of the World's Most Ethical
17 Companies, awarding this distinction to Teradata in 2018 for the ninth consecutive time.

18 **B. Teradata Scrupulously Protects Its Intellectual Property.**

19 24. Over its nearly 40-year history of innovation, Teradata has developed extensive
20 intellectual property related to its database and data-analytics technologies, obtaining more than
21 1000 patents. Teradata's intellectual property includes confidential techniques related to the
22 ingestion and management of massive amounts of data and the concurrent execution of large
23 numbers of highly complex analytical queries against that data. Teradata safeguards these
24 optimization techniques, which provide Teradata a significant advantage over its competitors, as
25 among its most valuable and confidential information.

26 25. Teradata's proprietary and highly valuable data-analytics techniques are not
27 known outside the company except under strict duties of non-disclosure, and Teradata
28 scrupulously maintains these techniques in confidence through many safeguards, including but

1 not limited to non-disclosure agreements, confidentiality provisions, password protection, express
2 licenses for end users, and secure infrastructure.

3 26. When Teradata was initially spun-off from its parent company NCR in 2007, each
4 employee was required to sign a contract containing a strict non-disclosure provision. When any
5 new employee joins Teradata, that employee is required to sign an agreement acknowledging the
6 duty to keep strictly confidential and treat as trade secret any information learned during the
7 course of employment related to the business or activities of Teradata. The employment
8 agreement also states that, upon termination, the employee will comply with this non-disclosure
9 agreement, and will surrender any Teradata information in the employee's possession upon
10 leaving the company. Additionally, upon their departure from Teradata, employees are required
11 to sign exit agreements reminding them they have a continuing obligation not to use or disclose,
12 or directly or indirectly aid others in using or disclosing, any of the proprietary information or
13 data they may have learned while employed at Teradata.

14 27. Teradata also requires third-party contractors, distributors, vendors, and
15 development partners to enter into non-disclosure agreements that strictly limit the use and
16 disclosure of any confidential information obtained in the course of their relationships with
17 Teradata. In those agreements, Teradata controls what resources a given partner or contractor can
18 access, how they can be accessed (often via specific passwords), and which specific personnel
19 can access those resources.

20 28. Any time Teradata is considering joint development with a third party, it requires
21 an NDA be signed before any confidential information can be exchanged as part of those initial
22 discussions. With respect to end users, Teradata protects its intellectual property by providing
23 access to its software tools and technical information only to persons who agree to the terms of
24 Teradata's end-user license agreements. Teradata also employs secure computing infrastructure
25 for its source code, design documents, and other proprietary and confidential information.

26 29. Teradata owns the copyright in the software associated with Teradata Database.
27 U.S. Copyright Registration Numbers for Teradata Database are provided below:
28

Work	Case Number	Effective Date of Registration (Date Submitted)	Registration Number
Teradata Database 12.0	1-6668876091	June 19, 2018	TXu 2-091-495
Teradata Database 13.0	1-6668993302	June 19, 2018	TXu 2-091-496
Teradata Database 13.1	1-6668993339	June 19, 2018	TXu 2-091-497
Teradata Database 14.0	1-6668993374	June 19, 2018	TXu 2-091-498
Teradata Database 14.1	1-6668993409	June 19, 2018	TXu 2-091-500
Teradata Database 15.0	1-6668993464	June 19, 2018	TXu 2-091-501
Teradata Database 15.1	1-6668983602	June 19, 2018	TXu 2-091-493

C. Teradata and SAP Enter into the Bridge Project.

30. SAP is the dominant provider of ERP (Enterprise Resource Planning) software (“ERP Applications”) in the market comprised of the world’s most complex, large-scale business enterprises (the “Top-Tier ERP Applications Market”). This market is more fully defined in Paragraphs 56 through 58 below. ERP Applications allow companies to gather and manage the data required to conduct their day-to-day operations across many aspects of the business enterprise, including sales and inventory transactions, financial and accounting transactions, human-resource transactions, and the like. ERP Applications typically are designed around a relational database that acts as a common repository for all the data used and managed by the ERP Applications in carrying out the entity’s business transactions. This database, known as a “transactional database,” ensures that all users of the entity’s ERP Applications have access to a uniform and current set of data, so that a given transaction will yield the same result no matter which of the users performs the transaction. Examples of commonly used transactional databases are the Oracle Database, IBM Db2, and Microsoft SQL Server.

31. Teradata traditionally has focused its development activities on the EDAW products and services consumed by the same complex, large-scale enterprises that form the Top-Tier ERP Applications Market (the “EDAW Market”). SAP, on the other hand, has traditionally focused on ERP Applications and, to a lesser extent, “business intelligence” (BI) tools (including the SAP BW tool) that allow ERP users to generate reports using their ERP-derived data. In the mid-2000s, SAP’s Top-Tier ERP Applications customers were fully reliant on third parties like Teradata to provide the analytical database and data-analytics backbone necessary to meet their

1 EDAW needs. Recognizing the potential synergies in integrating and marketing their
2 technologies to a common customer base, in 2008 Teradata and SAP entered into a partnership to
3 develop a solution that would “bridge” SAP’s Top-Tier ERP Applications customers to an
4 analytic solution based on Teradata’s market-leading EDAW product, which would be accessed
5 through the interface of the SAP BW tool (the “Bridge Project”).

6 32. A key challenge of the Bridge Project was to ensure fast and efficient
7 interoperation between SAP’s front-end systems and Teradata’s EDAW product. Subject to strict
8 non-disclosure agreements that limited the use of any confidential Teradata information to the
9 Bridge Project only, Teradata shared its valuable trade secret and proprietary techniques for
10 optimizing the integration and analysis of massive amounts of data at an enterprise-wide scale.
11 Using those techniques, Teradata and SAP succeeded in jointly developing and putting into
12 production an integrated solution called “Teradata Foundation,” which would enable SAP’s Top-
13 Tier ERP Applications customers to use Teradata as the underlying analytical database for
14 EDAW activities.

15 33. Teradata sharply limited SAP’s use of information, software, tools, and other
16 materials that it provided during the Bridge Project. The parties entered into a mutual non-
17 disclosure agreement (MNDA) in December 2008 and a further MNDA in June 2009. These
18 NDAs limited the disclosure and use of the parties’ “Confidential Information,” including both
19 parties’ “software and related documentation,” stating that such information “shall not be
20 reproduced in any form except as required to accomplish the intent of this Agreement.” On
21 February 27, 2009, SAP and Teradata entered into a Software Development Cooperation
22 Agreement (SDCA) and a Technology Partner Agreement (TPA) related to the Bridge Project.
23 These agreements restricted disclosure of the parties’ confidential information and included
24 prohibitions on reverse engineering.

25 34. During the Bridge Project, subject to the terms of the parties’ agreements, Teradata
26 provided to SAP proprietary, confidential, and trade secret information acquired through decades
27 of research and development. Teradata conducted training sessions on Teradata’s database
28 solutions for SAP developers working on the Bridge Project. The parties collaborated on testing,

1 evaluation, and development related to the creation of the integrated solution, during which time
2 Teradata's engineers provided extensive trade secret information on the design and optimization
3 of Teradata's MPP systems and the execution of analytical queries in such systems.

4 35. For example, during the Bridge Project, Teradata identified certain inefficiencies
5 in SAP's software that prevented it from leveraging the power and parallel-processing capabilities
6 of the Teradata Database. In a series of emails from 2008 to 2010 between SAP and Teradata
7 employees, Teradata identified the causes of these inefficiencies and suggested solutions based on
8 its own decades-long experience with MPP databases and the confidential solutions it
9 implemented in its own product offerings. In addition, Teradata conveyed numerous other trade
10 secrets to SAP during the Bridge Project, including innovative techniques for optimizing the
11 speed and efficiency of (a) the concurrent execution of many analytical queries and (b) the
12 distribution of vast amounts of data and complex analytical workloads across massively parallel
13 processing units.

14 36. In addition, Teradata provided SAP with access to its database systems for
15 experimental and research purposes in connection with the Bridge Project. For example, Teradata
16 installed its database system at SAP's COIL facility in Palo Alto, California, and at SAP's
17 research center in Walldorf, Germany. Teradata also provided SAP's developers with access to
18 Teradata Express, a fully functional trial version of Teradata Database, pursuant to Teradata's
19 standard end user license. Among other things, SAP's use of the Teradata Database installations
20 at COIL and in Walldorf and its use of Teradata Express were conditioned on SAP's agreement
21 not to perform any reverse-engineering or to disclose any test or evaluation results without
22 Teradata's prior written consent.

23 37. The parties' efforts in the Bridge Project bore fruit. Teradata and SAP
24 successfully developed Teradata Foundation, a jointly engineered solution that allowed SAP's
25 Top-Tier ERP Applications customers to use Teradata as the underlying database and data-
26 analytics engine for their EDAW needs. SAP and Teradata brought Teradata Foundation to
27 market, as they installed and finalized Foundation on site at one major customer's facilities and
28

1 developed business opportunities for numerous other potential customers, a business projected at
2 hundreds of millions of dollars annually.

3 **D. SAP Quickly Develops and Releases HANA, SAP's Flagship Database**
4 **Offering, by Misappropriating Teradata's Intellectual Property.**

5 38. While it was actively partnering with Teradata on the Bridge Project, SAP also
6 was developing its own competing database solution—SAP HANA. In the summer of 2009, just
7 months after the Bridge Project formally began, SAP co-founder Hasso Plattner and then-CTO
8 Dr. Vishal Sikka announced their goal of revitalizing SAP's lackluster and outdated product
9 offerings by developing a new, faster database architecture. Dr. Sikka quickly restructured SAP's
10 engineering teams to develop and deploy SAP HANA in less than a year, an extremely short time
11 frame for a project of such magnitude.

12 39. In November 2010, Dr. Sikka announced at SAP's annual user conference,
13 SAPPHIRE, that SAP had begun shipping its HANA product. In May 2011, again at SAP's
14 SAPPHIRE conference, an SAP customer demonstrated HANA for SAP BW to create what
15 purported to be an EDW-type environment. SAP's CTO described this version of SAP HANA
16 as incorporating a "massively parallel" database "with various data processing engines"—a
17 similar type of database architecture as that pioneered by Teradata and used in Teradata Database.
18 SAP announced general availability of SAP HANA in June 2011.

19 40. Two months later, on August 19, 2011, after the parties had been working on the
20 Bridge Project for nearly three years, SAP unilaterally terminated the project and stopped
21 supporting, selling, or marketing Teradata Foundation. Just days later in September 2011, SAP
22 announced HANA for SAP BW, which combined front-end software with the back-end database
23 engine (HANA) for the purpose of creating an EDW solution—the same thing Teradata
24 Foundation was intended to achieve.

25 41. Initial success of HANA (including HANA for SAP BW) was limited, in part
26 because, despite SAP's statements to the contrary, BW was ill-equipped to generate reports using
27 data from any other source besides SAP's ERP Applications. Nonetheless, SAP HANA use
28 eventually took off (aided by SAP's anticompetitive conduct discussed below), with HANA

1 revenue reaching \$2 billion by 2016. SAP HANA has also led to hundreds of millions of dollars
2 in additional licensing sales. Dr. Sikka was lauded in the industry as the “father” and
3 “mastermind” of SAP HANA, and was credited with reversing SAP’s stagnant product offerings.

4 42. Like SAP and Teradata’s jointly developed solution, SAP’s HANA product
5 combines a database solution with integrated software to perform data analytics. HANA purports
6 to serve as both types of database required by the large-scale, complex enterprises that make up
7 the Top-Tier ERP Applications Market and the EDAW Market: (1) a transactional database that
8 allows for the processing of transactional data in real-time; and (2) EDAW functionality that SAP
9 claims can enable enterprise analytics similar to those offered by Teradata. Thus, with HANA
10 (and BW on HANA), SAP now positions itself as a direct competitor in the EDAW market,
11 which Teradata essentially created, and in which Teradata has operated for almost forty years.

12 43. In developing HANA, SAP faced the same challenges which Teradata and SAP
13 faced during the Bridge Project and which Teradata engineers solved — the speed, efficiency,
14 and effectiveness of interoperation between SAP’s front-end software and an MPP database
15 engine as it attempted to store and analyze massive amounts of data. On information and belief,
16 to overcome this challenge during HANA development, the HANA developers, at the direction of
17 Dr. Sikka, utilized the same solution developed by Teradata’s engineers and developers during
18 the Bridge Project — using Teradata’s trade-secret techniques for optimizing the execution of
19 analytical queries and the speed of data storage and retrieval in large-scale databases.

20 44. Among other instances of misappropriation, SAP used Teradata trade secrets to
21 optimize the processing of certain Open SQL queries for large volumes of data, enabling
22 improved performance speed and opportunities for parallel processing and other enhancements on
23 SAP’s HANA. On information and belief, key SAP employees, including Dr. Sikka, the so-
24 called “mastermind” of HANA, were aware of and supported SAP’s misappropriation of
25 Teradata’s trade secrets during the development of HANA.

26 45. SAP also was able to carry out this repurposing because it staffed its HANA
27 development team with veterans of the Bridge Project. In some cases, SAP engineers were
28 working on both HANA development and the Bridge Project simultaneously, despite the

1 requirements in SAP and Teradata's agreements that confidential Teradata information provided
2 to SAP for the Bridge Project was to be used only for that purpose. In addition, a number of
3 Teradata employees working on the Bridge Project left Teradata and went to SAP, where they
4 worked on HANA, despite agreeing not to disclose any confidential and trade secret information
5 learned during their time at Teradata. At the time, Teradata was not aware of this cross-
6 pollination between SAP's Bridge Project and HANA development teams.

7 46. In addition, on information and belief, SAP developers further infringed
8 Teradata's copyrighted software, Teradata Express, which includes a fully functional copy of
9 Teradata Database, by reverse engineering the software in violation of Teradata's end-user
10 license. Specifically, Teradata has reason to believe that SAP engineers downloaded Teradata
11 Express and ran debugging or other tools against the software to circumvent Teradata's
12 protections and uncover Teradata confidential and proprietary techniques for database processing
13 and analytics.

14 **E. Teradata Discovers SAP's Theft of Teradata's IP.**

15 47. As Teradata would later learn (well after SAP's termination of the Bridge Project),
16 SAP was able to develop and bring HANA to market so quickly because SAP stole and misused
17 Teradata's intellectual property. On September 4, 2015, *Der Spiegel* published an article
18 reporting that an internal SAP auditor (later identified as Dr. Thomas Waldbaum) concluded that
19 SAP misappropriated proprietary and confidential information from Teradata that SAP engineers
20 obtained during the Bridge Project.

21 48. The article explained that the auditor dug deep "into the evolutionary history of
22 HANA" and "focuse[d] on the Bridge Project." In October 2012, according to *Der Spiegel*, Dr.
23 Waldbaum conducted interviews with SAP developers who worked with Teradata on the Bridge
24 Project. Although SAP executives initially met with Dr. Waldbaum to hear his allegations, SAP's
25 attorneys terminated their investigation by May 2013.

26 49. In January 2014, Dr. Waldbaum drew renewed attention to the issue, sending an
27 email to SAP's supervisory board stating that SAP improperly used the intellectual property of a
28 number of competitors, including Teradata, in its HANA product, and demanding that SAP take

1 action. On February 12, 2014, SAP fired Dr. Waldbaum. Teradata has reason to believe Dr.
2 Waldbaum has knowledge of additional information demonstrating SAP's theft of Teradata's
3 intellectual property.

4 50. In May 2014, less than two months after Dr. Waldbaum's termination, Dr. Sikka
5 left SAP for "personal reasons." Various media outlets noted that Dr. Sikka's departure was
6 sudden and unexpected, as the industry considered him a "star executive" who had been the "face
7 of SAP" and "a potential future leader of the company." Neither SAP nor Dr. Sikka has
8 explained the reasons for his departure.

9 51. Despite being in possession of Dr. Waldbaum's audit reports for nearly three
10 years, SAP concealed the investigation and its findings from Teradata and the public until it was
11 exposed by *Der Spiegel* in September 2015. As a result of *Der Spiegel*'s probe and the resulting
12 article, Teradata began investigating these allegations, which led to the discoveries culminating in
13 this lawsuit. For example, Teradata learned that several SAP employees working on the Bridge
14 Project, who therefore had access to and used confidential Teradata information, were
15 simultaneously working on HANA. Later, many of these employees would be assigned to
16 HANA full-time. Teradata also learned that SAP had incorporated Teradata's proprietary and
17 confidential information into HANA, solving HANA's speed and efficiency problems using the
18 same solutions that Teradata employees developed using Teradata's trade-secret techniques
19 during the Bridge Project.

20 52. Unbeknownst to Teradata at the time, SAP stole Teradata's trade secrets related to
21 optimizing data storage and retrieval (including query execution) in an MPP environment,
22 without authority incorporated them into HANA, and otherwise used them to aid development of
23 HANA, which has become SAP's flagship database product. Unlike Teradata, which has spent
24 four decades developing its EDAW technologies, SAP managed an initial release of its competing
25 HANA product after spending mere months in development. It has become clear to Teradata that
26 SAP was able to go to market so quickly only because SAP entered into an agreement with
27 Teradata under the false pretense of integrating the two companies' technologies, stole key
28 Teradata trade secrets, and then incorporated them into and used them to develop HANA.

1 Despite SAP's public statements denying any wrongdoing, SAP's misuse has continued unabated
2 to the present.

3 53. SAP's theft of Teradata's intellectual property has irretrievably harmed Teradata.
4 By unilaterally terminating the Bridge Project and ceasing support for Teradata Foundation in
5 favor of HANA, SAP killed an important line of business for Teradata—one in which Teradata
6 had invested considerable time, effort, and resources. SAP's actions also have effectively
7 blocked Teradata from developing relationships with the SAP customers that could most benefit
8 from Teradata's EDAW products, and have otherwise hampered Teradata's ability to sell and
9 market its own database management and business analytics technologies. The harm to Teradata
10 has only increased as a result of SAP's exploitation of its dominance in the market for Top-Tier
11 ERP Applications and its improper use of HANA in an attempt to eliminate Teradata as a
12 competitor (discussed below).

13 54. SAP, on the other hand, has capitalized on its unlawful use of Teradata's IP and its
14 anticompetitive conduct to the tune of billions of dollars in revenue. Just two years after the
15 launch of HANA, SAP's estimated annual revenue for HANA alone was over \$1 billion, and SAP
16 estimates it had over 18,000 HANA customers in 2017. In February 2018, SAP estimated that
17 over 50% of its ERP client base would be using HANA by 2020. Recent industry research
18 indicates that 60% of SAP's Top-Tier ERP Applications customers, and perhaps in excess of
19 80%, are employing or preparing to employ HANA. Furthermore, SAP has generated billions of
20 dollars in additional revenue from the SAP applications that HANA users have also purchased.

21 **F. SAP's Unlawful Efforts to Restrain Competition.**

22 55. As outlined above, HANA is the product of theft. However, rather than merely
23 attempting to compete on the merits with a tainted product, SAP has engaged in conduct designed
24 to eliminate competition in the EDAW market for SAP Top-Tier ERP Applications customers.
25 The growth and revenue information cited above is not the result of SAP's business acumen,
26 innovation, or skill, but instead is the direct result of SAP's anticompetitive efforts. SAP has
27 carried out its plan through a previously undisclosed change to its long-standing sales practices
28 that leaves its locked-in Top-Tier ERP Applications customers with little choice but to adopt

1 HANA to the exclusion of Teradata's EDAW products: tying upgrades of customers' ERP
2 Applications to customers' adoption of HANA (while ending support for older versions of ERP
3 Applications). On information and belief, SAP has also begun significantly restricting Teradata's
4 ability to access customers' SAP ERP data stored in HANA (which is necessary for the functional
5 use of Teradata's EDAW products), thereby ensuring the success of its tying arrangement in
6 coercing customers to adopt HANA.

7 **1. Relevant Markets and SAP's Market Power.**

8 56. As outlined above, there is a separate, relevant product market for ERP
9 Applications, such as SAP's S/4HANA and SAP's predecessor ERP programs, used by large-
10 scale, complex enterprises (the "Top-Tier ERP Applications Market").

11 57. Market participants recognize the distinct needs of these types of customers and
12 may refer to ERP Applications for customers with the above characteristics as "Tier 1" ERP
13 Applications. As it is understood in the industry, the customer base for "Tier 1" ERP
14 Applications generally consists of the largest companies in the world, such as Fortune 1000
15 companies in the United States, FTSE 100 companies in Europe, and similarly-sized privately-
16 held entities.

17 58. Top-Tier ERP Applications constitute a relevant product market because these
18 products provide unique, specialized tools and functionality at a scale that is designed to meet the
19 needs of customers with extremely high data volumes and complex sources of data. These
20 customers possess some or all of the following characteristics: (1) millions of transactions and/or
21 data-generating events on a daily basis; (2) multiple and distinct business lines; (3) diverse
22 geographic locations for operations; (4) multiple and disparate sources and formats of data related
23 to distributors, suppliers, competitors, customers, and/or employees; and (5) revenues typically
24 exceeding \$1 billion. These characteristics result in customer demand for highly customizable
25 and flexible software that is readily scalable.

26 59. Given the critical importance of a customer's ERP Applications to its business,
27 customers of Top-Tier ERP Applications will migrate to the most recent version of their
28 provider's ERP Applications to have access to the latest features and functionality, most robust

1 support, and most recent security and software updates. Where, as here, a Top-Tier ERP
2 Applications vendor announces the end, or “sunset,” of prior versions of its ERP Applications,
3 Top-Tier ERP Applications customers have no choice but to upgrade.

4 60. There are no reasonable or adequate economic substitutes for upgrades of SAP
5 ERP Applications for the vast majority of Top-Tier ERP Applications customers because they are
6 locked-in to their current ERP application provider as a result of the information disparity at the
7 time of purchase and enormously high costs of switching, as set forth below.

8 61. Customers are unable to perform detailed cost analyses for the lifecycle of their
9 ERP Applications at the time of purchase. It is difficult for customers to obtain the necessary
10 information among competing ERP Applications with respect to maintenance costs, upgrade
11 timelines (or the costs of such upgrades), as well as any disruption in service that may occur over
12 the life of the product. Such pre-purchase analyses also cannot account for any post-sale changes
13 in policy or practice such as SAP’s changes set forth below. This creates an information disparity
14 between Top-Tier ERP Applications customers and providers.

15 62. Severe switching costs associated with changing a customers’ Top-Tier ERP
16 Applications provider effectively preclude the vast majority of customers from changing their
17 ERP Applications. These switching costs include both direct financial costs and indirect costs at
18 every stage of the switching process. Initially, Top-Tier ERP Application customers devote
19 substantial resources to evaluating ERP Applications. This process can take several years to
20 complete, given the need to thoroughly examine the functionality of ERP Applications and
21 measure that functionality against the unique needs of a particular customer.

22 63. After the evaluation process, customers spend significant sums on the actual
23 licensing, development, and implementation of ERP Applications within their specific business
24 environments. An individual customer may spend tens of millions of dollars on its ERP
25 Applications in a given year, depending upon the complexity and customization of its ERP
26 Applications, the number of users, and other factors.

27 64. Implementing ERP Applications involves extensive costs and substantial devotion
28 of resources, including but not limited to training employees on how to properly use those ERP

1 Applications, troubleshooting problems, and realigning business practices with the selected
2 provider. In addition to employee-focused change management, implementation involves major
3 costs associated with migrating data, testing and deployment of specific software developed for
4 each customer, and technical implementation that occurs during this time period.

5 65. Accordingly, changing Top-Tier ERP Applications providers is not a task
6 completed in days or weeks but over a period of months or years, from the date a license
7 agreement is signed, through development, testing, and training, to the actual deployment.

8 66. These switching costs, coupled with the information disparity between provider
9 and customer as to future changes in policy or practice, mean that Top-Tier ERP Applications
10 customers are locked-in to their current providers and thus may be exploited by a change in
11 policy or practice from their provider that was not known at the time customers made their initial
12 choice of ERP Applications provider.

13 67. SAP has held and continues to hold a dominant position in the Top-Tier ERP
14 Applications Market, and possesses a market share that ranges, on information and belief, from
15 60% to 90% depending on the industry in which the customer operates. Oracle is the only other
16 significant competitor for these Top-Tier customers, but industry research indicates that Oracle's
17 market share has historically been less than SAP's with respect to the number of installed Top-
18 Tier ERP Applications customers.

19 68. As outlined above, there is also a separate relevant product market for EDAW
20 products (the "EDAW Market"), which enable Top-Tier ERP Applications customers to retain,
21 and more importantly to perform complex analytical operations on, vast amounts of data from a
22 wide variety of data streams (*i.e.*, the companies' ERP Applications and numerous other sources).

23 69. EDAW products are separate and distinct products from ERP Applications.
24 EDAW products are also separate and distinct products from transactional databases, which are
25 used primarily for the storage and processing of transactional data. EDAW products have
26 historically been designed for their specialized purpose and sold separately from ERP
27 Applications and transactional databases, and each of these three products serves different
28 functions for customers.

1 70. Teradata's EDAW products include tools that were developed to copy a
2 customer's ERP Applications data from the customer's transactional database for incorporation
3 into Teradata's EDAW system, where a customer can run complex analytical functions against all
4 the data the customer collects from its business enterprise, including its ERP data and data from
5 other sources. Teradata's EDAW tools also allow for extraction of historical data from the
6 customer's transactional system and storage of that historical data in the EDAW system. As a
7 general rule, ERP Applications like SAP's do not perform well when historical data is kept in the
8 underlying transactional database, and use of an EDAW system allows the customer to purge the
9 data from the transactional system and warehouse it elsewhere.

10 71. For all Teradata customers, regardless of the transactional database a customer is
11 using, Teradata's tools copy ERP Application data from the transactional database by reading the
12 transaction-log files maintained in that database. The Teradata tools do this with a read-only
13 operation from the transaction log and do not manipulate the actual data within the transactional
14 database in any way. These tools are designed to understand the structure of the stored data and
15 copy it in a way that is accurate/consistent with the customer's ERP Applications but without the
16 risk of corrupting the integrity of the ERP data. Teradata then incorporates a customer's ERP
17 data with data from other sources in its EDAW system to perform a wide variety of analytical
18 functions. Teradata utilizes its software on a variety of transactional databases deployed with a
19 variety of ERP Applications.

20 72. Most Top-Tier ERP Applications customers also use EDAW products.
21 Multinational companies with diverse product lines, complex supply chains, and large workforces
22 require the ability to quickly analyze and understand historical and incoming real-time data to
23 inform current and future business decisions. EDAW products are indispensable for these
24 companies. SAP itself has recognized the evolving analytic needs of these companies, which
25 influenced SAP to engage Teradata, under the guise of a partnership, in order to steal Teradata's
26 intellectual property and develop a competing EDAW product.

27 73. SAP developed HANA to function as both a transactional database for managing
28 ERP Applications data and an analytical database with EDAW functionality. Teradata Database

1 is designed primarily for use as an EDAW product but can also process analytical workloads with
2 transactional components. Thus, SAP has positioned itself as a direct competitor to Teradata in
3 the EDAW Market within its Top-Tier ERP Applications customer base. However, HANA also
4 serves as a potential source of data (specifically, a customer's SAP ERP data) for its Top-Tier
5 ERP Applications customers who want the performance and linear-scalability offered only by
6 Teradata's EDAW products.

7 74. As discussed above, to copy the data generated by a specific application (such as
8 an ERP Application), EDAW products require software specifically designed for and tailored to
9 that application. Providers of EDAW products make substantial investments in developing
10 products that can successfully and reliably copy a customer's data derived from a specific ERP
11 Application. The software used to accurately replicate data derived from a provider's ERP
12 Applications, such as SAP's ERP Applications, is not reasonably interchangeable with software
13 used to copy data derived from another provider's ERP Application absent significant
14 development work.

15 75. Because EDAW products serve as "back-end" systems for the storage and analysis
16 of data from various streams across the entire business enterprise, these products are dependent
17 upon other sources, such as ERP Applications, to obtain the data that is then uploaded and
18 analyzed. EDAW products providers, such as Teradata, must be able to access these data sources
19 in a way that permits the efficient and accurate copying of data in order to serve as a viable option
20 for their customers. This dependence of EDAW products upon other sources of data and the need
21 to develop the ability to efficiently and accurately obtain that data constitute barriers to entry, and
22 are particularly acute here, where SAP's anticompetitive conduct effectively prevents other
23 companies from offering viable EDAW products for SAP's Top-Tier ERP Applications
24 customers.

25 76. The relevant geographic markets are the sale of Top-Tier ERP Applications and
26 EDAW products on a worldwide basis, given the multi-national nature of the market participants,
27 as further described herein.
28

1 **2. Historically, SAP's Top-Tier ERP Applications Customers Could**
2 **Freely Select Their EDAW Product of Choice.**

3 77. SAP's Top-Tier ERP Applications customers historically were able to use the
4 EDAW products of their choosing, knowing that their EDAW product could access and obtain
5 data that was created in their SAP ERP Applications and then stored in a transactional database.
6 SAP previously did not offer a competitive EDAW product or transactional database with the
7 requisite functionality and scalability for SAP's Top-Tier ERP Applications customers. Thus, a
8 Top-Tier ERP SAP Applications customer could select a separate transactional database vendor
9 other than SAP and select a separate EDAW product vendor, such as Teradata.

10 78. This arrangement permitted SAP's Top-Tier ERP Applications customers to create
11 ecosystems that best fit their needs. For example, historically, nearly all of the customers who
12 used SAP's ERP Applications would run the applications on an Oracle, IBM, or Microsoft
13 transactional database, and a very high percentage of those Top-Tier ERP Applications customers
14 would use Teradata for their EDAW needs.

15 79. Teradata made substantial investments to create software that could reliably and
16 accurately take extremely large amounts of a customer's SAP-derived data and copy it into
17 Teradata's systems to perform data analytics within this ecosystem. For example, after SAP
18 ended the Bridge Project in 2011, Teradata was forced to find other ways to meet consumer
19 demand for accessing SAP-derived data for use in Teradata's EDAW systems. Teradata spent
20 tens of millions of dollars to acquire a company with existing technology in this area, and
21 invested additional millions annually to develop and optimize that solution for Teradata and bring
22 it to market.

23 80. SAP was aware of and supported this arrangement. SAP knew that Teradata was
24 obtaining customers' SAP-derived data for use in Teradata's EDAW products via the replication
25 method described above. This arrangement between SAP and Teradata was mutually beneficial
26 for both parties: Teradata's ability to efficiently access a customer's SAP-derived data increased
27 the marketability and desirability of Teradata's EDAW products, and the ability of SAP's ERP-
28

1 derived data to be integrated into Teradata's EDAW products increased the marketability and
2 desirability of SAP's ERP Applications.

3 81. At the time HANA was first released in 2010, and up through the introduction of
4 S/4HANA in February 2015, SAP continued to allow its ERP customers to choose their own
5 database solutions, including their transactional databases and EDAW products. Teradata did not
6 actively attempt to integrate with HANA during this time period because there was little to no
7 demand for integration among its customers, who, because of the size and complexity of their
8 database needs, were not in a position to adopt HANA.

9 82. Thus, Teradata continued to serve its SAP customers by accessing log files of
10 customers' SAP-derived data and importing them into Teradata's systems for storage and
11 analysis. SAP customers made their ERP Application choices with the understanding that they
12 would be able to use the EDAW providers that best suited their needs.

13 3. SAP Ties Upgrades of its ERP Application Product to HANA.

14 83. Notwithstanding SAP's theft of Teradata's intellectual property, early iterations of
15 HANA did not have widespread success among SAP's large-scale ERP Applications customers
16 because of HANA's deficiencies in functionality and lack of true linear-performance scalability,
17 and because (even when operating with SAP's BW reporting tool) it was ill-suited for integration
18 of enterprise data from third-party sources.

19 84. Following the release of HANA, mutual SAP-Teradata customers still
20 overwhelmingly preferred Teradata's EDAW products to HANA. Even as customers began
21 evaluating whether to adopt HANA for their transactional database functionality, customers also
22 approached Teradata and encouraged it to develop an integration for HANA.

23 85. It stands to reason that SAP was well-aware that its largest SAP ERP customers
24 would likely maintain their current software ecosystems rather than adopt HANA. Thus, SAP
25 concluded the only possible way to gain widespread acceptance of HANA among its largest ERP
26 Applications customers was to exert control over its locked-in ERP Applications customers and
27 force them to adopt HANA.
28

1 86. SAP first carried out this plan by tying SAP ERP upgrades to the adoption of
2 HANA. Specifically, SAP launched the latest version of its ERP Application, SAP S/4HANA, in
3 February 2015. SAP describes S/4HANA as being “built on” and “natively written” for HANA.
4 This marketing language attempts to conceal the fact that, in an abrupt change to past practice,
5 SAP S/4HANA is wholly incompatible with other transactional databases and can only run on
6 HANA. Thus, in order to upgrade to SAP’s newest ERP Application, customers must now also
7 adopt HANA.

8 87. In addition to making S/4HANA incompatible with any other transactional
9 database (unlike prior versions of its ERP Applications), SAP has combined the two distinct
10 products, its ERP Application and HANA, into a single offering (in contrast to its prior sales
11 practice of offering both products separately). Moreover, and on information and belief, SAP’s
12 licensing agreements further restrict the ability of customers to read and copy S/4HANA ERP
13 data to any other database.

14 88. The facts demonstrate SAP’s decision to combine these two products as a single
15 product offering was done for the sole purpose of forcing its locked-in, Top-Tier ERP
16 Applications customers to adopt HANA and to restrain competition. There is no technological or
17 other justification for SAP’s drastic change in sales practice, and any such justification is greatly
18 outweighed by the anticompetitive effect of SAP’s actions on both customers and competitors.

19 89. SAP has also announced that it is ending support for prior versions of its ERP
20 Applications by 2025. SAP has thus forced its current customers into upgrading to S/4HANA,
21 and, by extension, adopting HANA as their database solution, by setting a deadline on the support
22 of their non-HANA-based SAP ERP Applications. On information and belief, SAP knows that
23 the vast majority of its customers will not be able to evaluate, select, and implement an alternative
24 ERP provider in this time period. These customers therefore will be forced to adopt HANA when
25 they upgrade their ERP Application.

26 90. SAP’s conditioning ERP upgrades on customers’ adoption of HANA as the
27 database underlying their ERP Applications is a previously undisclosed reversal in its sales
28 practices. HANA had been on the market for approximately five years before the release of

1 S/4HANA. SAP had not previously conditioned customers' use of SAP's ERP Applications on
2 their adoption of HANA. SAP's ERP customers could not have reasonably anticipated when they
3 entered into their license agreements with SAP that they would be subject to such an undisclosed,
4 future reversal of practice.

5 91. On information and belief, SAP has made substantial efforts to force its customers
6 to adopt HANA sooner rather than later by limiting updates for legacy SAP Applications and
7 limiting the release of new features to S/4HANA.

8 92. The purpose and impact of SAP's change in practice is clear: whereas previously
9 SAP's Top-Tier ERP Applications customers were free to choose how to manage their data
10 needs, those locked-in customers will now be forced to adopt HANA. Given the costs of
11 licensing, implementing, and maintaining EDAW products, the vast majority of large-scale
12 customers will have no choice but to abandon their prior EDAW providers because they cannot
13 support dual EDAW providers. Thus, because HANA purports to offer some or all of the
14 functionality offered by Teradata, SAP is effectively coercing its customers into leaving Teradata
15 and adopting the full stack of SAP products (including HANA).

16 93. On information and belief, SAP has also more recently begun significantly
17 restricting Teradata's ability to access customers' SAP ERP data stored in HANA for use in
18 Teradata's EDAW products, thereby ensuring that SAP's Top-Tier ERP Applications customers
19 utilize HANA (and only HANA) for all of their database needs.

20 94. SAP's unreasonable restrictions and limitations on Teradata's ability to access
21 customers' SAP-derived data have heightened the success of SAP's unlawful tie at the expense of
22 SAP's Top-Tier ERP Applications customers and Teradata.

23 95. A number of existing Teradata customers have threatened to terminate their
24 relationship with Teradata if Teradata cannot properly access their SAP ERP data from HANA.
25 Moreover, prospective SAP Top-Tier ERP Applications customers will not license Teradata's
26 EDAW products if Teradata cannot properly access their SAP ERP data from HANA or will
27 otherwise be limited in its ability to incorporate SAP ERP data into its EDAW products.
28

1 crucial to the operation of Teradata's business, and, if available to others, would enable them to
2 compete with Teradata to Teradata's detriment. Teradata has taken reasonable measures to keep
3 such information secret. Confidential information related to Teradata Database therefore
4 qualifies as a trade secret within the meaning of 18 U.S.C. § 1839.

5 102. SAP disclosed, used and continues to use Teradata's trade secrets without express
6 or implied consent, and SAP knew or had reason to know at the time of such disclosure and use
7 that the knowledge of the trade secrets was acquired under circumstances giving rise to a duty to
8 maintain the secrecy of the trade secrets or limit the use of the trade secrets.

9 103. Additionally, without consent, authorization, approval, or license, SAP knowingly,
10 willingly, and unlawfully acquired, disclosed, and/or used or intended to use Teradata's trade
11 secrets through improper means and continues to use Teradata's trade secrets without consent.

12 104. SAP's misappropriation of Teradata's trade secrets is and has been willful and
13 malicious, such that Teradata is entitled to exemplary damages and its reasonable attorney's fees.

14 105. SAP has realized unjust profits, gains, and advantages as a proximate result of its
15 trade secret misappropriation.

16 106. SAP will continue to realize unjust profits, gains, and advantages as a proximate
17 result of its trade secret misappropriation as long as such misappropriation is permitted to
18 continue.

19 107. Teradata is entitled to an injunction restraining SAP from engaging in continuing
20 and further acts of trade secret misappropriation. Unless SAP is enjoined and prohibited from
21 disclosing or using Teradata's trade secrets and all materials disclosing or derived from the
22 misappropriated information are seized, SAP will continue to misappropriate Teradata's trade
23 secrets.

24 108. As a direct and proximate result of SAP's misappropriation of Teradata's trade
25 secrets, Teradata has suffered, and will continue to suffer, monetary loss to its business,
26 reputation, and goodwill. Teradata is entitled to recover from SAP, in an amount to be
27 determined at trial, the damages Teradata has sustained and will sustain, for its actual losses and
28

any unjust enrichment obtained by SAP as a result of its misappropriation of Teradata's trade secrets.

COUNT II
(Trade Secret Misappropriation Under the California Uniform Trade Secrets Act (Cal. Civil Code § 3426, *et seq.*))

109. Teradata hereby restates and re-alleges the allegations set forth in paragraphs 1 through 108 above and incorporates them by reference.

110. Teradata's confidential information relating to Teradata Database, including Teradata's proprietary and confidential techniques for optimizing the speed of data storage and retrieval in large-scale databases, constitutes information that has independent economic value because it is unknown to others and is the subject of reasonable efforts to maintain its secrecy or limit its use. It therefore qualifies as a trade secret within the meaning of California Civil Code Section 3426, *et seq.*

111. SAP disclosed, used and continues to use Teradata's trade secrets without express or implied consent, and SAP knew or had reason to know at the time of such disclosure and use that the knowledge of the trade secrets was acquired under circumstances giving rise to a duty to maintain the secrecy of the trade secrets or limit the use of the trade secrets.

112. Additionally, without consent, authorization, approval, or license, SAP knowingly, willingly, and unlawfully acquired, disclosed, and/or used or intended to use Teradata's trade secrets through improper means and continues to use Teradata's trade secrets without consent.

113. SAP's misappropriation of Teradata's trade secrets is and has been willful and malicious, such that Teradata is entitled to exemplary damages and its reasonable attorney's fees and costs.

114. SAP has realized unjust profits, gains, and advantages as a proximate result of its trade secret misappropriation.

115. SAP will continue to realize unjust profits, gains, and advantages as a proximate result of its trade secret misappropriation as long as such misappropriation is permitted to continue.

116. Teradata is entitled to an injunction restraining SAP from engaging in further acts of trade secret misappropriation. Unless SAP is enjoined and prohibited from disclosing or using Teradata's trade secrets and all materials disclosing or derived from the misappropriated information are seized, SAP will continue to misappropriate Teradata's trade secrets.

117. As a direct and proximate result of SAP's misappropriation of Teradata's trade secrets, Teradata has suffered, and will continue to suffer, monetary loss to its business, reputation, and goodwill. Teradata is entitled to recover from SAP, in an amount to be determined at trial, the damages Teradata has sustained and will sustain, for its actual losses and any unjust enrichment obtained by SAP as a result of its misappropriation of Teradata's trade secrets.

COUNT III
(Copyright Infringement (17 U.S.C. § 501))

118. Teradata hereby restates and re-alleges the allegations set forth in paragraphs 1 through 117 above and incorporates them by reference.

119. Teradata owns the copyright in the software associated with Teradata Database. U.S. Copyright Registration Numbers for Teradata Database are provided below:

Work	Case Number	Effective Date of Registration (Date Submitted)	Registration Number
Teradata Database 12.0	1-6668876091	June 19, 2018	TXu 2-091-495
Teradata Database 13.0	1-6668993302	June 19, 2018	TXu 2-091-496
Teradata Database 13.1	1-6668993339	June 19, 2018	TXu 2-091-497
Teradata Database 14.0	1-6668993374	June 19, 2018	TXu 2-091-498
Teradata Database 14.1	1-6668993409	June 19, 2018	TXu 2-091-500
Teradata Database 15.0	1-6668993464	June 19, 2018	TXu 2-091-501
Teradata Database 15.1	1-6668983602	June 19, 2018	TXu 2-091-493

120. The Teradata Express simulator, which contains a fully functional version of Teradata Database, contains a substantial amount of original material that is copyrightable subject matter under the Copyright Act, 17 U.S.C. § 101 *et seq.*

121. Without consent, authorization, approval, or license, SAP knowingly, willingly, and unlawfully copied Teradata's copyrighted work, including by loading unauthorized copies of

1 Teradata Express into RAM for reverse-engineering and other purposes prohibited by Teradata's
2 end-user license.

3 122. SAP was aware of Teradata's copyrights of its Teradata Database (and therefore
4 its Teradata Express) software. SAP's infringement therefore was knowing and willful.

5 123. By its unlawful copying and distribution, SAP has violated Teradata's exclusive
6 rights under 17 U.S.C. § 106.

7 124. SAP has realized unjust profits, gains, and advantages as a proximate result of its
8 infringement.

9 125. SAP will continue to realize unjust profits, gains, and advantages as a proximate
10 result of its infringement as long as such infringement is permitted to continue.

11 126. Teradata is entitled to an injunction restraining SAP from engaging in any further
12 acts in violation of the United States copyright laws. Unless SAP is enjoined and prohibited from
13 infringing Teradata's copyrights and unless all infringing products and advertising materials are
14 seized, SAP will continue to intentionally infringe Teradata's copyrights.

15 127. As a direct and proximate result of SAP's direct willful copyright infringement,
16 Teradata has suffered, and will continue to suffer, monetary loss to its business. Teradata is
17 entitled to recover from SAP, in an amount to be determined at trial, the damages it has sustained
18 and will sustain, and any gains, profits, and advantages obtained by SAP as a result of its acts of
19 infringement and use of the copied materials. Alternatively, Teradata is entitled to an award of
20 statutory damages for SAP's infringement of Teradata's registered copyrights.

21 **COUNT IV**
22 **(Unlawful Tying, SAP Top-Tier ERP Applications and EDAW Products for SAP Top-Tier**
23 **ERP Applications Customers (15 U.S.C. §§ 1, 14))**

24 128. Teradata hereby restates and re-alleges the allegations set forth in paragraphs 1
25 through 127 above and incorporates them by reference.

26 129. SAP's Top-Tier ERP Applications (the tying product) are a separate and distinct
27 product and market from the market for SAP's HANA product (the tied product) and the overall
28 market for EDAW products for SAP Top-Tier ERP Applications, including Teradata EDAW

1 products. HANA unquestionably possesses EDAW product functionality, which is largely the
2 result of SAP's theft of Teradata's intellectual property.

3 130. SAP is coercing its current Top-Tier ERP Application customers into adopting
4 HANA, to the exclusion of other EDAW products, through a previously undisclosed reversal in
5 practice, that is, conditioning upgrades of SAP's ERP Applications on customers' adoption of
6 HANA.

7 131. As set forth above, SAP has sufficient economic power in the market for Top-Tier
8 ERP Applications to (a) coerce its current Top-Tier ERP Applications customers into adopting
9 HANA through its previously undisclosed reversal in practice and (2) effectively preclude
10 customers from purchasing competitive EDAW products (including Teradata's EDAW products),
11 given the fact that these customers know they must adopt SAP's HANA in order to upgrade their
12 mission-critical ERP Applications. Further, SAP's economic power is derived from severe
13 information and switching costs. SAP Top-Tier ERP Applications customers are locked-in to
14 their SAP ERP Applications and are now being exploited by SAP.

15 132. SAP has effectively entered into arrangements with current and prospective
16 Teradata customers in order to restrain a not insubstantial amount of interstate commerce.

17 133. SAP's unlawful tying is economically irrational conduct that has no legitimate
18 business justification and only serves to foreclose competition in the EDAW Market for SAP's
19 Top-Tier ERP Applications customers. Any justification SAP could offer is either pretextual or is
20 else far outweighed by the anticompetitive effects.

21 134. By reason of the foregoing, SAP's arrangements with its current Top-Tier ERP
22 Applications customers constitute unlawful agreements or combinations in restraint of trade, in
23 violation of Section 1 of the Sherman Act, 15 U.S.C. § 1, and Section 3 of the Clayton Act, 15
24 U.S.C. § 14.

25 135. SAP's tying is per se unlawful given the high degree of market power SAP
26 possesses in the market for Top-Tier ERP Applications and the power it exercises over its current
27 Top-Tier ERP Applications customers. Competition in the EDAW Market has been and is
28 appreciably restrained as a consequence of SAP's conduct.

136. Alternatively, even if SAP's tying is not a per se violation, SAP's tying unreasonably restrains competition in the tied product market and constitutes a rule of reason violation of Section 1 of the Sherman Act, 15 U.S.C. § 1, and Section 3 of the Clayton Act, 15 U.S.C. § 14.

137. SAP's conduct affects far more than a not insubstantial amount of commerce in the EDAW Market. The amount of business affected by SAP's tying arrangement is in the millions and will only continue to increase.

138. Teradata has been harmed and will continue to suffer irreparable harm as a consequence of SAP's conduct. Teradata is entitled to an injunction restraining SAP from engaging in the unlawful tying of upgrades to its ERP Applications with HANA. Unless and until SAP is enjoined, SAP will continue to engage in the unlawful tying set forth above.

139. By reason of the foregoing, Teradata is entitled to injunctive and monetary relief, including treble damages and attorneys' fees, pursuant to 15 U.S.C. §§ 15 and 26.

COUNT V
(Attempted Monopolization of EDAW Market for SAP Top-Tier ERP Applications
Customers (15 U.S.C. § 2))

140. Teradata hereby restates and re-alleges the allegations set forth in paragraphs 1 through 139 above and incorporates them by reference.

141. SAP provides Top-Tier ERP Applications and EDAW products.

142. As set forth above, EDAW products for SAP's Top-Tier ERP Applications customers constitutes a relevant product market.

143. SAP has acted with the specific intent to monopolize the EDAW Market for SAP's Top-Tier ERP Applications customers through its exclusionary conduct, specifically, tying upgrades of SAP's Top-Tier ERP Applications to the adoption of HANA, as set forth above.

144. The impact of the above-described exclusionary conduct has been heightened by SAP's attempts to significantly restrict Teradata's ability to access customers' SAP ERP-derived data stored in HANA.

145. SAP was able to engage in the exclusionary practice described above through its misappropriation of Teradata's trade secrets.

1 146. As set forth above, SAP's Top-Tier ERP Application customers could not have
2 known that SAP would restrict their ability to utilize their EDAW products of choice and force
3 them to adopt HANA at the time they entered into their agreements with SAP. Further, SAP's
4 abrupt reversal in its practices after years of permitting customers to use competing EDAW
5 products demonstrates that SAP's conduct lacks any legitimate business purpose, and serves
6 solely to foreclose competition.

7 147. Given SAP's power over its Top-Tier ERP Applications customers and the extent
8 to which SAP's anticompetitive conduct precludes competition in the EDAW Market, there is a
9 dangerous probability that SAP will acquire monopoly power in the EDAW Market for SAP's
10 Top-Tier ERP Applications customers.

11 148. SAP has already begun to enjoy the fruits of its anticompetitive conduct, as an
12 estimated 60% of SAP's largest ERP Applications customers (and perhaps more than 80%), are
13 employing or preparing to employ HANA. This rate will only rise more rapidly as more
14 customers upgrade to S/4 HANA and are foreclosed from either licensing alternative EDAW
15 products or accessing their SAP ERP data for use with Teradata's EDAW products. Rather than
16 being the product of skill, business acumen, or luck, much of HANA's adoption rate is the direct
17 result of SAP's anticompetitive conduct.

18 149. Moreover, SAP's conduct has immediate and significant anticompetitive effects.
19 As set forth above, customers cannot justify paying for EDAW products with substantially
20 overlapping functionality. As the result of this conduct, Teradata and similarly situated vendors
21 will be forced to exit the market.

22 150. As a result of SAP's conduct, SAP's Top-Tier ERP Applications customers have
23 suffered and will continue to suffer from a reduction in choice in the EDAW Market. SAP's
24 conduct will also have the effect of higher prices, reduced quality, and lower innovation and
25 output in the EDAW Market for SAP's Top-Tier ERP Applications customers.

26 151. The conduct set forth above constitutes unreasonable and anti-competitive means
27 by which SAP is attempting to monopolize the EDAW Market for SAP Top-Tier ERP
28 Applications customers, in violation of the Sherman Antitrust Act, 15 U.S.C. § 2.

152. Teradata has suffered direct and tangible injury as a result of SAP's anticompetitive conduct and the damage it has caused to free and fair competition in the EDAW Market for SAP Top-Tier ERP Applications customers. By reason of the foregoing, Teradata is entitled to injunctive and monetary relief, including treble damages and attorneys' fees, pursuant to 15 U.S.C. §§ 15 and 26.

PRAYER FOR RELIEF

WHEREFORE, Teradata respectfully requests the following relief:

A. A preliminary injunction prohibiting SAP, its officers, agents, servants, employees, attorneys, and affiliated companies, its assigns and successors in interest, and those persons in active concert or participation with them, from continued acts of (1) misappropriation of Teradata's trade secrets, (2) infringement of the Teradata copyrights at issue in this litigation, and (3) violation of antitrust laws;

B. A permanent injunction prohibiting SAP, its officers, agents, servants, employees, attorneys, and affiliated companies, its assigns and successors in interest, and those persons in active concert or participation with them, from continued acts of (1) misappropriation of Teradata's trade secrets, (2) infringement of the Teradata copyrights at issue in this litigation, and (3) violations of antitrust laws;

C. Entry of judgment holding SAP liable for infringing the Teradata copyrights at issue in this litigation;

D. A permanent injunction prohibiting SAP, its officers, agents, servants, employees, attorneys, and affiliated companies, its assigns and successors in interest, and those persons in active concert or participation with them, from disclosing, exploiting, or continuing to utilize Teradata's confidential information relating to Teradata Database, including but not limited to Teradata Database source code;

E. Entry of judgment holding SAP liable for misappropriating Teradata's trade secrets;

F. Entry of judgment holding SAP liable for violating the Sherman and Clayton Acts;

G. An order that all copies made or used in violation of Teradata's copyrights or trade

1 secrets, and all means by which such copies may be reproduced, be impounded and destroyed or
2 otherwise reasonably disposed of;

3 H. An order awarding damages, together with pre-judgment and post-judgment
4 interest, to compensate Teradata for SAP's copyright infringement and acts of trade secret
5 misappropriation, including actual and exemplary damages and lost profits, or in the alternative
6 for copyright infringement, statutory damages under 17 U.S.C. § 504(c);

7 I. An order awarding treble damages, along with reasonable attorney's fees, pre-
8 judgment and post-judgment interest, for SAP's violation of the antitrust laws;

9 J. An order awarding Teradata its costs and attorney's fees; and

10 K. Any and all other legal and equitable relief as may be available under law and
11 which the court may deem proper.

12 **JURY DEMAND**

13 Teradata hereby demands TRIAL BY JURY of all claims and issues presented in this First
14 Amended Complaint so triable.

15 Dated: July 11, 2018

MORRISON & FOERSTER LLP

17 By: /s/ Bryan Wilson
Bryan Wilson

18 Attorneys for Plaintiffs
19 TERADATA CORPORATION,
20 TERADATA US, INC., and
21 TERADATA OPERATIONS, INC.
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